Europäisches Patentamt

European Patent Office

Office européen des brevets



EP 0 849 296 A3

(12)

EUROPEAN PATENT APPLICATION

- (88) Date of publication A3: 06.05.1999 Bulletin 1999/18
- (43) Date of publication A2: 24.06.1998 Bulletin 1998/26
- (21) Application number: 97122119.7
- (22) Date of filing: 16.12.1997

(51) Int. Cl.⁶: **C08F 290/06**, C08F 2/50, C03C 25/02

(11)

(84) Designated Contracting States:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:

AL LT LV MK RO SI

- (30) Priority: 20.12.1996 JP 341674/96
- (71) Applicants:
 - TAKEDA CHEMICAL INDUSTRIES, LTD. Chuo-ku, Osaka 541 (JP)
 - Shin-Etsu Chemical Co., Ltd. Chiyoda-ku Tokyo 100 (JP)
- (72) Inventors:
 - Yamazaki, Kyuya,
 c/o Takeda Chem. Ind. Ltd.
 Yodogawa-ku, Osaka 532 (JP)
 - Nishimura, Mitsuhiro, c/oTakeda Chem. Ind. Ltd. Yodogawa-ku, Osaka 532 (JP)

- Uemura, Takashi, c/oTakeda Chem. Ind. Ltd. Yodogawa-ku, Osaka 532 (JP)
- Yamamoto, Akira,
 Shin-EtsuChem. Co. Ltd.
 Usui-gun, Gunma 379-02 (JP)
- Kozakai, Shouhel,
 Shin-EtsuChem. Co. Ltd.
 Usui-gun, Gunma 379-02 (JP)
- Asano, Masatoshi,
 Shin-EtsuChem. Co. Ltd.
 Usui-gun, Gunma 379-02 (JP)
- (74) Representative:
 von Kreisler, Alek, Dipl.-Chem. et al
 Patentanwälte,
 von Kreisler-Selting-Werner,
 Bahnhofsvorplatz 1 (Deichmannhaus)
 50667 Köln (DE)

(54) A photocurable resin composition and a method for producing the same

(57)The invention provides a photocurable resin composition which inhibits the deactivation of a bisacylphosphine oxide-series photopolymerization initiator and is useful for coating optical fibers. The photocurable resin composition comprises (A) a polyurethane (meth)acrylate oligomer, (B) an ethylenically unsaturated compound, (C) a bisacylphosphine oxide-series photopolymerization initiator, and (D) a tertiary amine and no tin component. Incorporation of the component (D) inhibits the decomposition and deactivation of the component (C). The component (A) may contain an aliphatic C₁₄₋₄₀ polyol (hydrogenated dimerdiol, 12hydroxystearyl alcohol) as a polyol component. This resin composition is used for a primary coating of a glass fiber or an indirect coating of an optical fiber through the primary layer, the coating layer being cured by light irradiation to provide an optical fiber coated with the resin composition.



EUROPEAN SEARCH REPORT

Application Number

EP 97 12 2119

Category	Citation of document with in	ndication, where appropriate,	Relevant	CLASSIFICATION OF THE	
Jalegory	of relevant pass		to claim	APPLICATION (Int.CI.6)	
X	VALET A.: "Zur Wet UV-härtbarer Pulver FARBE + LACK, vol. 102, no. 1, 19 XP002094307 * page 41 *	klarlacke"	1-3	C08F290/06 C08F2/50 C03C25/02	
x	WO 96 29352 A (DYMA 26 September 1996 * page 17, line 14-	X CORP) 34; examples; table 1 *	1-3		
X	EP 0 262 629 A (BAS * claims; examples		1-3		
				TECHNICAL FIELDS SEARCHED (Int.Ci.6)	
				C03C C08F C08K C09J	
			-		
	The present search report has		1		
	Place of search	Date of completion of the search 22 February 1999	.	Examiner iederich, P	
THE HAGUE CATEGORY OF CITED DOCUMENTS X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category		T: theory or princip E: earlier patent do after the filing d	T: theory or principle underlying the E: earlier patent document, but publi after the filing date D: document cited in the application L: document cited for other reasons		
A : tech O : non	nological background -written disclosure rmediate document	& : member of the document	····		

EP 0 849 296 A3

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 97 12 2119

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-02-1999

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9629352	A	26-09-1996	AU CA EP JP US US	4974196 A 2215597 A 0815146 A 10510578 T 5672393 A 5677362 A	08-10-1996 26-09-1996 07-01-1996 13-10-1996 30-09-199 14-10-199
EP 0262629	A	06-04-1988	DE HK JP JP SG US	3633436 A 11794 A 1102455 A 2604172 B 136293 G 4868091 A	14-04-198 18-02-199 20-04-198 30-04-199 25-11-199 19-09-198
					•
					*

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82